

REMARKS

By the current amendment, Applicants basically:

1. Thank the Examiner for the allowance of claims 7-12 and 18-24 (see enumerated paragraph 4 of the Office Action).
2. Thank the Examiner for the indication of allowable subject matter in claims 4-6 and 14-17 (see enumerated paragraph 4 of the Office Action).
3. Amend claims 5 and 16 to moot the objections articulated in the first enumerated paragraph of the Office Action.
4. Respectfully traverse all prior art rejections (see §B infra).
5. Respectfully request a one month extension of time.
6. Remind the Examiner to consider the prior art submitted with the Information Disclosure Statements (IDS) submitted on November 15, 2000 and February 21, 2003 (see §C infra).

B. THE PATENTABILITY OF THE CLAIMS

Claims 1-3 and 13 stand rejected under 35 USC §103(a) as being unpatentable over U.S. 5,475,383 to Ohta et al in view of U.S. Patent 6,151,301 to Holden (see enumerated paragraph 3 of the Office Action). Despite inclusion of claim 6 in the rejection, Applicants interpret the Office Action as merely objecting (not rejecting) dependent claim 6¹.

¹ In enumerated paragraph 4 of the Office Action, claims 4-6 and 14-17 were objected to as being dependent upon a rejected base claim, but indicated as being allowable if rewritten in independent form including all limitations of the base claim and any intervening claims (see enumerated paragraph 3 of the Office Action). The PTOL-326 also shows claims 4 – 6 and 14 – 16 as being objected to. Although enumerated paragraph 3 of Office Action shows claim 6 as being rejected, claim 6 is accorded no separate treatment in the rejection. For these reasons, although the Office Action is inconsistent, Applicants interpret the Office Action as merely objecting (not rejecting) dependent claim 6.

Applicants' independent claims 1 and 13 require reading out any low priority cell that resides in the buffer memory for the corresponding crosspoint when the high priority signaling element is active (and thus indicating that a high priority cell is in a queue awaiting writing to the buffer memory for its corresponding crosspoint). In view of the wording of independent claims 1 and 13, as well as the teaching of Applicants' specification, the buffer memory must be read as (1) the memory element for a corresponding crosspoint, and (2) the memory element in which both the low priority cell and the succeeding high priority cell are successively stored. Applicants' claims are, therefore, not taught or suggested by a multi-buffer pool through which low priority and high priority cells travel in different paths through the pool.

Applicants do not understand how U.S. Patent 6,151,301 to Holden forms a basis for rejection. There is nothing in Holden's description of his high priority queue or description of operation thereof that shows cells of low priority being flushed out of a memory path to expedite transmission through the same memory path for high priority cells. Moreover, Holden's backpressure strategy pertains to an apparently entirely different phenomena: halting data transmission to allow a receiver an opportunity to catch up with the transmitted data stream.

Applicants respectfully request that the prior art rejection be withdrawn and the application routed to issue. However, should the Examiner persist with the same prior art rejection in the next office action, a detailed rebuttal to Applicants' arguments would be appreciated, as well as any constructive suggestion to resolve any semantical issues if such are deemed to provide any basis for misunderstanding.

C. REMINDER RE INFORMATION DISCLOSURE STATEMENT (IDS)

On November 15, 2000 and February 21, 2003, Applicants filed separate Information Disclosure Statements. Thus far it appears that the information cited in these two IDS documents have not been made of official record. The captioned application is not available on Private PAIR to confirm whether the two IDSes have been entered into the

PTO file. Accordingly, copies of the November 15, 2000 and February 21, 2003 IDS documents, together with proof of filing, and copies of listed references, are attached, as well as clean (duplicate) PTO-1449s.

It is requested that the references listed on the PTO-1449s for the November 15, 2000 and February 21, 2003 be officially cited, and copies of the initialed PTO-1449s be returned to Applicants.

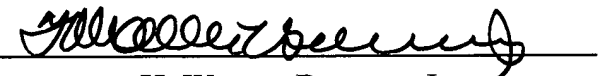
D. MISCELLANEOUS

Applicant submits that all claims are patentably distinguishable over the applied art of record. The Examiner has ample bases for withdrawing all rejections and for allowance of all pending claims. Accordingly, a formal indication of allowance is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,
NIXON & VANDERHYE P.C.

By: 
H. Warren Burnam, Jr.
Reg. No. 29,366

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Telephone: (703) 816-4000
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Attachments:

1. copies of the November 15, 2000 and February 21, 2003 IDS documents, together with proof of filing, and references listed thereon
2. duplicate PTO-1449 for November 15, 2000 IDS
3. duplicate PTO-1449 for February 21, 2003 IDS

New Patent Application Under Rule 53(b)

Serial No.: to be assigned

Atty: H. Warren Burnam, Jr

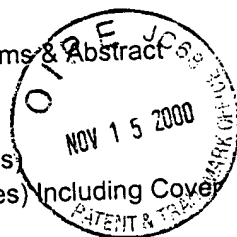
Inventor/s: HORLIN et al

Date: Nov. 15, 00

C#/M#: 2380-152

Title: PRIORITY SIGNALING FOR CELL SWITCHING

Amendment
16 Pages Specification, Claims & Abstract
22 Claims
10 Sheets of Drawings
Declaration (Pages)
Assignment (Pages) Including Cover
Priority Document(s)
Base Issue Fee Transmittal
\$ Fee (Check)
Other: Rule 53(b) Transmittal; IDS w/ PTO-1449 and 13
US refs.



RECEIVED

SEP 15 2004

Technology Center 2600

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

HORLIN et al

Serial No. to be assigned

Filed: November 15, 2000

For: PRIORITY SIGNALING FOR CELL SWITCHING



Atty. Ref.: 2380-152

Group: unknown

Examiner: unknown

* * * * *

Assistant Commissioner for Patents
Washington, DC 20231

RECEIVED

SEP 15 2004

Technology Center 2600

Sir:

INFORMATION DISCLOSURE STATEMENT

As suggested by 37 C.F.R. 1.97, the undersigned attorney brings to the attention of the Patent and Trademark Office the references listed on the attached form PTO-1449, a copy of each of which is enclosed.

Official citation and consideration of all the attached documents is requested. Please return to the undersigned a copy of the attached PTO-1449 with the examiner's initials in the left column [MPEP §609] with the next communication.

The filing of an Information Disclosure Statement shall not be construed as a representation that a search has been made [37 C.F.R. § 1.97(g)], an admission that the information cited is, or is considered to be, material to patentability or that no other material information exists. Further, the filing of an Information Disclosure Statement shall not be construed as an admission against interest in any manner [Commissioner's Notice of January 9, 1992, 1135 O.G. 12-25 at 25].

Respectfully submitted,

NIXON & VANDERHYTE P.C.

November 15, 2000

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Serial No.: 09/712,123
Inventor/s: HORLIN et al

Atty: HWB
Date: 2/21/03
C#/M#: 2380-152

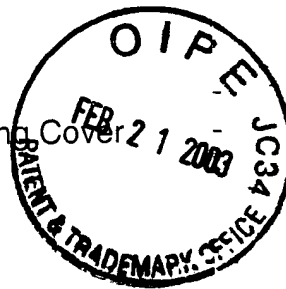
Title: PRIORITY SIGNALING FOR CELL SWITCHING

X Preliminary Amendment (**5 pages**)
Pages Specification, Claims & Abstract
Claims

X Sheets of Drawings
Declaration (1 Pages)
Assignment (Pages) Including Cover
Priority Document(s)
Base Issue Fee Transmittal

\$120.00 Fee (Check) **NON PRE-BILL**

Other: **Amendment Transmittal; Submission of
Supplemental Declaration; IDS w/ PTO-1449 and Written
Opinion**



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

ANDERSEN

Atty. Ref.: 2380-152

Serial No. 09/712,123

Group: 2661

Filed: November 15, 2000

Examiner: unknown

For: PRIORITY SIGNALING FOR CELL SWITCHING

* * * * *

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

INFORMATION DISCLOSURE STATEMENT

- | | | |
|-------------------------------------|------------------------------------------------------------------------------------------------------------|----------|
| <input checked="" type="checkbox"/> | 1. PTO-1449 Pursuant to 37 CFR 1.97(b)
[within 3 months of filing or prior to 1st Office Action] | N/C |
| <input type="checkbox"/> | 2. Statement Pursuant to 37 CFR 1.97(c)
[before Final Office Action or Allowance] | N/C |
| <input type="checkbox"/> | 3. Fee Payment Pursuant to 37 CFR 1.97(c)
[before Final Office Action or Allowance] | \$180.00 |
| <input type="checkbox"/> | 4. Pursuant to 37 CFR 1.97(d)
[before Issue Fee payment] | \$180.00 |

The following are submitted in the above-identified application in compliance with 37 C.F.R. §§ 1.97 and 1.98:

- | | |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | 5. A list of documents on Form PTO-1449 together with copies of each identified document and a translation or a concise explanation of each non-English language document is enclosed herewith. The references cited in the Written Opinion were previously submitted with the Information Disclosure Statement filed on July 9, 2001. |
| <input type="checkbox"/> | a) The partial translations were provided to the undersigned by the applicants' foreign representative. The undersigned has no knowledge regarding the pertinency of the partially translated portions vis-à-vis the document as a whole. The partial translations are merely provided for whatever convenience they may be. |

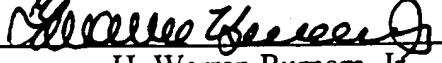
This paper is submitted in accordance with:

ANDERSEN
Serial No. 09/712,123

- ☒ 6. 37 CFR 1.97(b): [within 3 months of filing or prior to 1st Office Action]
- ☐ 7. 37 CFR 1.97(c): [before Final Office Action or Allowance, whichever is earlier]; and
- ☐ a) The required Statement made in item 9 below; or
- ☐ b) The \$180.00 fee specified in 37 CFR §1.17(p) for submission of this Information Disclosure Statement is authorized in item 10 below.
- ☐ 8. 37 CFR §1.97(d): [before issue fee payment]; and
- ☐ a) The fee (\$180.00) required by 37 CFR §1.17(p) is submitted herewith; and
- ☐ b) The required Statement is stated in item 9 below.
- ☐ 9. Statement under 37 CFR 1.97(e)
- ☐ a) The undersigned attorney of record hereby certifies under 37 C.F.R. §1.97(e) that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement (each item contained in this IDS was the first citation of that item by a foreign patent office in a counterpart foreign application which occurred no more than three months prior to the filing of this IDS); or
- ☐ b) No item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this Statement, after making reasonable inquiry, no item of information contained in this Statement was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement.
- ☒ 10. Please charge all deficiency fees associated with the submission of this Information Disclosure Statement and any other fees applicable to this application to Deposit Account No. 14-1140. An original and one (1) copy of this document are enclosed.

Respectfully submitted,
NIXON & VANDERHYE P.C.

February 21, 2003

By: 
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**INFORMATION DISCLOSURE
CITATION**

~~ATTY. DOCKET NO.~~

SERIAL NO.

2380-152

09/712,123

APPLICANT

ANDERSEN

(Use several sheets if necessary)

FILING DATE

GROUP

November 15, 2000

2661

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)

	Written Opinion mailed July 26, 2002 in corresponding PCT application number PCT/SE01/02392

*Examiner

Date Considered

Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.

Form PTO-FB-A820 (Also PTO-1449)

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

Ericsson AB
Patent Unit Radio Access
164 80 STOCKHOLM

ANKOM

2002-07-31

Kate

PCT

WRITTEN OPINION

(PCT Rule 66)

Date of mailing
(day/month/year)

26-07-2002

Applicant's or agent's file reference

P12038WO

REPLY DUE

within 60 days
from the above date of mailing

International application No.

PCT/SE01/02392

International filing date (day/month/year)

30.10.2001

Priority date (day/month/year)

15.11.2000

International Patent Classification (IPC) or both national classification and IPC⁷

H04L 12/56

Applicant

Telefonaktiebolaget LM Ericsson (publ)

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 15.03.2003

Name and mailing address of the IPEA/SE

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Box 5055
S-102 42 STOCKHOLM

Facsimile No. 08-667 72 88

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17978
PATOREG-S

Authorized officer

Marianne Norrgren/LR
Telephone No. 08-782 25 00

WRITTEN OPINION

International application No.

PCT/SE01/02392

I. Basis of the opinion

1. With regard to the **elements** of the international application:*

- ☒ the international application as originally filed
- ☐ the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the claims:
 pages _____, as originally filed
 pages _____, as amended (together with any statement) under article 19
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the drawings:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheet/fig _____

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2 (c)).

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".

WRITTEN OPINION

International application No.

PCT/SE01/02392

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-22</u>	YES
	Claims	<u>---</u>	NO
Inventive step (IS)	Claims	<u>---</u>	YES
	Claims	<u>1-22</u>	NO
Industrial applicability (IA)	Claims	<u>1-22</u>	YES
	Claims	<u>---</u>	NO

2. Citations and explanations

Documents cited in the International Search Report:

- D1. WO 0038380 (Telefonaktiebolaget LM Ericsson), 29 June 2000
- D2. Nader Mirfakhraei: "Wafer-scale integration as a technology choice for high speed ATM switching systems", 1994
- D3. US 5537400 A (Diaz Felix V et al), 16 July 1996
- D4. Yukihiro Doi et al: "A high-speed ATM switch architecture for FTTH - an ATM switch architecture with input and cross point buffers", 23 April 1995

In D1, which is considered to represent the most relevant state of the art, an ATM switching node is described. The switching node contains a number of node entities and a switch core, which routes ATM cells between the entities (see figure 31 and page 8, line 20 - line 25). The entities connect the ATM switching node to other ATM nodes. The switch core comprises rows for incoming data and columns for outgoing data (see figure 7). In the cross points between rows and columns there are small buffers. Each entity has a Switch Port Interface Module (SPIM) (see figure 32A and figure 32B). The SPIMs are connected to the switch core by a number of queues (see figure 7).

There is one queue for each priority level in the ATM system (see page 26, line 21 - page 27, line 17). An incoming cell is placed in the queue that corresponds to its priority. Cells with the highest priority will be fetched, to the switch core, until the queues are empty or blocked by occupied cross points. Lower priority cells will be read as soon as there are no cells in the queues with higher priority or all the higher priority cells are blocked by occupied cross points. A round-robin mechanism is used to give equal bandwidth to the different queues within the same priority level.

.../...

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: V

To get a high priority cell through the switch core when a low priority cell blocks the cross point, a command is sent as a special management cell called Plus Priority cell (see page 27, line 20 - line 24). This cell is terminated in the core and any cell in the cross point buffer gets its priority increased. In this way, the cross point will be emptied within a predetermined time.

Thus, through D1, a switching node is known which comprises the following:

- Plural switch core ports.
- A buffer matrix having one buffer memory per cross point.
- Means for switching cells having different priority classes.
- A queue for high priority cells and a queue for low priority cells.
- Signalling means for signalling when a high priority cell is in a queue awaiting writing to the buffer memory.
- Input/output means for reading out any low priority cell that resides in the buffer memory for the cross point when the high priority signal is activated.
- Means for writing the high priority cell to the buffer memory for the corresponding cross point after the low priority cell has been read out.

Claims 1-15,17-20,22:

The priority signalling mechanisms, that notify the switch core that a high priority cell is waiting in a queue, are different in D1 and your application. In your application a predetermined value is written to a semiconductor element. In D1 a command is sent, in a cell, to the switch core. However, this difference, in the signalling mechanisms, is not considered to constitute an inventive step. The invention according to claims 1-15,17-20,22 is thus novel but is considered not to involve an inventive step.

...//...

WRITTEN OPINION

International application No.

PCT/SE01/02392

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: V

Claims 16, 21:

It is mentioned in claims 16,21 that the switch core comprises signalling means for signalling when a low priority cell is a cross point. This feature is not included in the switching node described in D1. However, the applicant has not in a convincing manner shown that the low priority signalling means, according to the claimed invention, has any unexpected beneficial affects compared to those in D1. The invention according to claims 16,21 is thus novel but is considered not to involve an inventive step.

Document D2, D3 and D4 are documents that describe the state of the art and can be used to explain the background of the invention.

WRITTEN OPINION

International application No.

PCT/SE01/02392

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 1, in your application, comprises all the features of claim 3. Claim 3 is therefore not appropriately formulated as a claim dependent on claim 1.